IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	Smith et al.	Docket No.:	101.00011
Application No.:	10/750,374	Group Art Unit:	2836
Filing Date:	December 31, 2003	Examiner:	Zeev V. Kitov
Title:	Systems and Methods for Immobilization		

Commissioner for Patents
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DECLARATION UNDER 37 C.F.R. §1.132

I, Robert Stratbucker MD PhD, do hereby declare and state as follows:

1. I received a Medical Doctorate degree from the University of Nebraska College of Medicine and a Doctor of Philosophy degree from the University of Nebraska Graduate School Department of Physiology. I am currently a practicing medical doctor having a clinic in Nebraska. I am currently employed by TASER International, Inc. ("TASER") as Medical Director. Prior to employment with TASER, I served as a consultant to TASER and to several other stun device manufacturers.

2. In 1995/1996, commissioned by Patrick Smith, I tested the electrical stimulus signal effects in pigs which were rendered unconscious with anesthetics. Such anesthetized pigs were placed on their backs and partially, equally, and independently suspended from fixed supports instrumented with a tension recording strain gauge for each extremity. The stimulating electrodes were symmetrically affixed to the torso of the pig with a separation between the electrodes of at least 6 inches. A modified electronic control device having a 0.88 microfarad capacitor, a 2000 volt spark gap, and an output transformer was used. A stimulus signal having a 10 microsecond pulse width resulted in each of the four extremities pulling against the fixed supports with similar force.

3. Subsequent testing showed that applying a similar stimulus signal with electrode spacing of at least six inches to human subjects produced contractions of skeletal muscles

sufficient to prevent the voluntary use of the muscles for normal locomotion of an individual's body. At decreased electrode spacing, an individual can be trained to walk through the pain caused by the stimulus signal without losing locomotion.

4. I have read US Patent No. 5,698,815 to *Ragner*. He describes a bullet capable of delivering an electrical signal to "stun" (Ragner col. 4, l. 25 – 42), to incapacitate (Ragner abstract), or to immobilize (Ragner col. 12, l. 24 – 25). He describes the physiological effect of the signal at the "Ragner Shock Rating of 10" as causing "[f]ull muscle contractions and a jarring impact to the local area with closely spaced electrodes." Ragner discloses an electrode spacing of 3 cm (1.18 inches). At this close spacing of the electrodes Ragner could not have observed the contraction of skeletal muscles sufficient to halt voluntary locomotion. The electrode spacing taught by Ragner may result in pain or discomfort that discourages locomotion, but not in skeletal muscle contractions that halt voluntary locomotion by a target.

5. Pursuant to the terms of 28 U.S.C. §1746, I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. The declarations made herein are made with the knowledge that willful false statements and the like are punishable by fine, imprisonment, or both under 18 U.S.C. §1001 and may jeopardize the validity of the present patent.

Declarant's Signature

11-27-06

Date